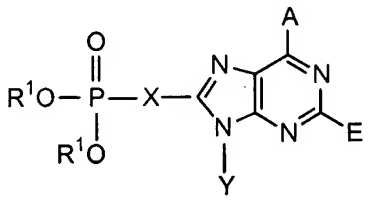
## AMENDMENTS

In the Claims

Please amend the claims as indicated below. A complete set of all claims previously submitted, including the status for each claim, immediately follows below.

1. – 44. Cancelled

45. (New) A method of preventing diabetes in animals comprising administering to animals at risk of developing diabetes a pharmaceutically effective amount of a compound of formula 1:



wherein

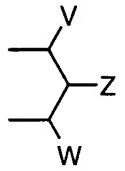
A is selected from the group consisting of $-NR^8_2$, $-NHSO_2 R^3$, $-OR^5$, $-SR^5$, halo, lower alkyl, $-CON(R^4)_2$, guanidino, amidino, –H, and perhaloalkyl;

E is selected from the group consisting of –H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, –CN, and $-NR^7_2$ ;

X is selected from the group consisting of -alk-NR–, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S–, alicyclicene, heteroalicyclicene, 1,1-dihaloalkylene, –C(O)-alk-, –NR–C(O)–NR'–, -alk-NR–C(O)–, -alk-C(O)–NR–, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from –H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;

Y is selected from the group consisting of –H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $-C(O)R^3$, $-S(O)_2 R^3$, $-C(O)-OR^3$, $-CONHR^3$, $-NR^2_2$, and $-OR^3$, all except H are optionally substituted;

$R^1$ is independently selected from the group consisting of –H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $–C(R^2)_2$ -aryl, -alk-aryl, $–C(R^2)_2$ $OC(O)NR^2_2$, $–NR^2$ –C(O)–$R^3$, $–C(R^2)_2$ –$OC(O)R^3$, $–C(R^2)_2$ –O–$C(O)OR^3$, $–C(R^2)_2$ $OC(O)SR^3$, -alk-S–C(O)$R^3$, -alk-S–S-alkylhydroxy, and -alk-S–S–S-alkylhydroxy, or together $R^1$ and $R^1$ are -alk-S–S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together $R^1$ and $R^1$ are




wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and $–R^9$ ; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of $–CH_2$ OH, $–CH_2$ $OCOR^3$, $–CH_2$ $OC(O)SR^3$, $–CH_2$ $OCO_2$ $R^3$, $–SR^3$, –S(O)$R^3$, $–CH_2$ $N_3$, $–CH_2$ $NR^2_2$, $–CH_2$ Ar, –CH(Ar)OH, –CH(CH=$CR^2$ $R^2$)OH, –CH(C≡$CR^2$)OH, and $–R^2$ ;

with the provisos that:

a) V, Z, W are not all –H; and

b) when Z is $-R^2$, then at least one of V and W is not –H or $-R^9$ ;

$R^2$ is selected from the group consisting of $R^3$ and –H;

$R^3$ is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;

$R^4$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;

$R^5$ is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;

$R^6$ is independently selected from the group consisting of –H, and lower alkyl;

$R^7$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $-C(O)R^{10}$ ;

$R^8$ is independently selected from the group consisting of –H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $-C(O)R^{10}$, or together said $R^8$ groups form a bidendate alkylene;

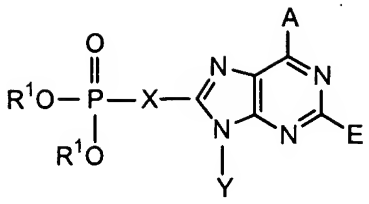
$R^9$ is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;

$R^{10}$ is selected from the group consisting of –H, lower alkyl, $-NH_2$, lower aryl, and lower perhaloalkyl;

$R^{11}$ is selected from the group consisting of alkyl, aryl, –OH, $-NH_2$ and $-OR^3$ ; and

pharmaceutically acceptable prodrugs and salts thereof.

46. (New) A method of treating impaired glucose tolerance comprising administering to patients in need thereof a pharmaceutically effective amount of an FBPase inhibitor of formula 1:



wherein

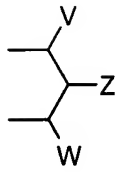
A is selected from the group consisting of $-NR^8_2$, $-NHSO_2 R^3$, $-OR^5$, $-SR^5$, halo, lower alkyl, $-CON(R^4)_2$, guanidino, amidino, –H, and perhaloalkyl;

E is selected from the group consisting of –H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, –CN, and $-NR^7_2$ ;

X is selected from the group consisting of -alk-NR–, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S–, alicyclicene, heteroalicyclicene, 1,1-dihaloalkylene, –C(O)-alk-, –NR–C(O)–NR'–, -alk-NR–C(O)–, -alk-C(O)–NR–, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from –H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;

Y is selected from the group consisting of –H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $-C(O)R^3$, $-S(O)_2 R^3$, $-C(O)–OR^3$, $-CONHR^3$, $-NR^2_2$, and $-OR^3$, all except H are optionally substituted;

$R^1$ is independently selected from the group consisting of –H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $-C(R^2)_2$ -aryl, -alk-aryl, $-C(R^2)_2 OC(O)NR^2_2$, $-NR^2 -C(O)–R^3$, $-C(R^2)_2 -OC(O)R^3$, $-C(R^2)_2 –O–C(O)OR^3$, $-C(R^2)_2 OC(O)SR^3$, -alk-S–C(O)$R^3$, -alk-S–S-alkylhydroxy, and -alk-S–S–S-alkylhydroxy, or together $R^1$ and $R^1$ are -alk-S–S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together $R^1$ and $R^1$ are




wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and $-R^9$ ; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of $-CH_2$ OH, $-CH_2$ $OCOR^3$, $-CH_2$ $OC(O)SR^3$, $-CH_2$ $OCO_2$ $R^3$, $-SR^3$, $-S(O)R^3$, $-CH_2$ $N_3$, $-CH_2$ $NR^2_2$, $-CH_2$ Ar, –CH(Ar)OH, $-CH(CH=CR^2$ $R^2)OH$, $-CH(C\equiv CR^2)OH$, and $-R^2$ ;

with the provisos that:

a) V, Z, W are not all –H; and

b) when Z is $-R^2$, then at least one of V and W is not –H or $-R^9$ ;

$R^2$ is selected from the group consisting of $R^3$ and –H;

$R^3$ is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;

$R^4$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;

$R^5$ is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;

$R^6$ is independently selected from the group consisting of –H, and lower alkyl;

$R^7$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $-C(O)R^{10}$ ;

$R^8$ is independently selected from the group consisting of –H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $-C(O)R^{10}$, or together said $R^8$ groups form a bidendate alkylene;

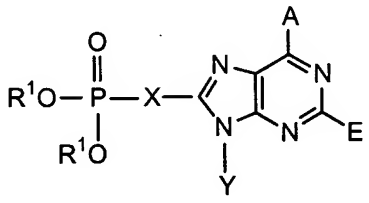
$R^9$ is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;

$R^{10}$ is selected from the group consisting of –H, lower alkyl, $-NH_2$, lower aryl, and lower perhaloalkyl;

$R^{11}$ is selected from the group consisting of alkyl, aryl, –OH, $-NH_2$ and $-OR^3$ ; and

pharmaceutically acceptable prodrugs and salts thereof.

47. (New) A method of treating insulin resistance comprising administering to patients in need thereof a pharmaceutically effective amount of an FBPase inhibitor of formula 1:




wherein

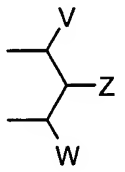
A is selected from the group consisting of $-NR^8_2$, $-NHSO_2 R^3$, $-OR^5$, $-SR^5$, halo, lower alkyl, $-CON(R^4)_2$, guanidino, amidino, –H, and perhaloalkyl;

E is selected from the group consisting of –H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, –CN, and $–NR^7_2$ ;

X is selected from the group consisting of -alk-NR–, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S–, alicyclicene, heteroalicyclicene, 1,1-dihaloalkylene, –C(O)-alk-, –NR–C(O)–NR'–, -alk-NR–C(O)–, -alk-C(O)–NR–, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from –H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;

Y is selected from the group consisting of –H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $–C(O)R^3$, $–S(O)_2 R^3$, $–C(O)–OR^3$, $–CONHR^3$, $–NR^2_2$, and $–OR^3$, all except H are optionally substituted;

$R^1$ is independently selected from the group consisting of –H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $–C(R^2)_2$ -aryl, -alk-aryl, $–C(R^2)_2 OC(O)NR^2_2$, $–NR^2 –C(O)–R^3$, $–C(R^2)_2 –OC(O)R^3$, $–C(R^2)_2 –O–C(O)OR^3$, $–C(R^2)_2 OC(O)SR^3$, -alk-S–C(O)$R^3$, -alk-S–S-alkylhydroxy, and -alk-S–S–S-alkylhydroxy, or together $R^1$ and $R^1$ are -alk-S–S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together $R^1$ and $R^1$ are




wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and $–R^9$ ; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy,

or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of $-CH_2OH$, $-CH_2OCOR^3$, $-CH_2OC(O)SR^3$, $-CH_2OCO_2R^3$, $-SR^3$, $-S(O)R^3$, $-CH_2N_3$, $-CH_2NR^2_2$, $-CH_2Ar$, $-CH(Ar)OH$, $-CH(CH=CR^2R^2)OH$, $-CH(C\equiv CR^2)OH$, and $-R^2$;

with the provisos that:

a) V, Z, W are not all –H; and

b) when Z is $-R^2$, then at least one of V and W is not –H or $-R^9$;

$R^2$ is selected from the group consisting of $R^3$ and –H;

$R^3$ is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;

$R^4$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;

$R^5$ is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;

$R^6$ is independently selected from the group consisting of –H, and lower alkyl;

$R^7$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $-C(O)R^{10}$;

$R^8$ is independently selected from the group consisting of –H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $-C(O)R^{10}$, or together said $R^8$ groups form a bidendate alkylene;

$R^9$ is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;

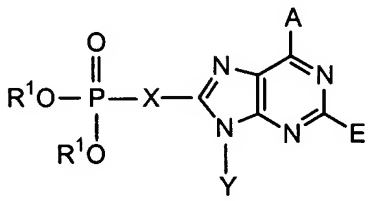
$R^{10}$ is selected from the group consisting of –H, lower alkyl, $–NH_2$, lower aryl, and lower perhaloalkyl;

$R^{11}$ is selected from the group consisting of alkyl, aryl, –OH, $–NH_2$ and $–OR^3$ ; and

pharmaceutically acceptable prodrugs and salts thereof.

48. (New) The method of claim 1 wherein said animals at risk of developing diabetes have a disease or condition selected from the group consisting of impaired glucose tolerance, insulin resistance, hyperglycemia, obesity, accelerated gluconeogenesis, and increased hepatic glucose output.

49. (New) A method of treating or preventing a disease or condition selected from the group consisting of hyperlipidemia, atherosclerosis, ischemic injury, and hypercholesterolemia which comprises administering to an animal in need thereof a pharmaceutically effective amount of an FBPase inhibitor of formula 1:




wherein

A is selected from the group consisting of $–NR^8_2$, $–NHSO_2 R^3$, $–OR^5$, $–SR^5$, halo, lower alkyl, $–CON(R^4)_2$, guanidino, amidino, –H, and perhaloalkyl;

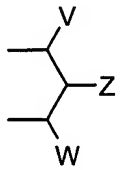
E is selected from the group consisting of –H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, –CN, and $–NR^7_2$ ; .

X is selected from the group consisting of -alk-NR–, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S–, alicyclicene,

heteroalicyclicene, 1,1-dihaloalkylene, –C(O)-alk-, –NR–C(O)–NR'–, -alk-NR–C(O)–, -alk-C(O)–NR–, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from –H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;

Y is selected from the group consisting of –H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $-C(O)R^3$, $-S(O)_2 R^3$, $-C(O)-OR^3$, $-CONHR^3$, $-NR^2_2$, and $-OR^3$, all except H are optionally substituted;

$R^1$ is independently selected from the group consisting of –H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $-C(R^2)_2$ -aryl, -alk-aryl, $-C(R^2)_2$ $OC(O)NR^2_2$, $-NR^2$ $-C(O)-R^3$, $-C(R^2)_2$ $-OC(O)R^3$, $-C(R^2)_2$ $-O-C(O)OR^3$, $-C(R^2)_2$ $OC(O)SR^3$, -alk-S–C(O)$R^3$, -alk-S–S-alkylhydroxy, and -alk-S–S–S-alkylhydroxy, or together $R^1$ and $R^1$ are -alk-S–S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together $R^1$ and $R^1$ are




wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and $-R^9$ ; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl,

or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of $-CH_2OH$, $-CH_2OCOR^3$, $-CH_2OC(O)SR^3$, $-CH_2OCO_2R^3$, $-SR^3$, $-S(O)R^3$, $-CH_2N_3$, $-CH_2NR^2_2$, $-CH_2Ar$, $-CH(Ar)OH$, $-CH(CH{=}CR^2R^2)OH$, $-CH(C{\equiv}CR^2)OH$, and $-R^2$;

with the provisos that:

a) V, Z, W are not all –H; and

b) when Z is $-R^2$, then at least one of V and W is not –H or $-R^9$;

$R^2$ is selected from the group consisting of $R^3$ and –H;

$R^3$ is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;

$R^4$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;

$R^5$ is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;

$R^6$ is independently selected from the group consisting of –H, and lower alkyl;

$R^7$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $-C(O)R^{10}$;

$R^8$ is independently selected from the group consisting of –H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $-C(O)R^{10}$, or together said $R^8$ groups form a bidendate alkylene;

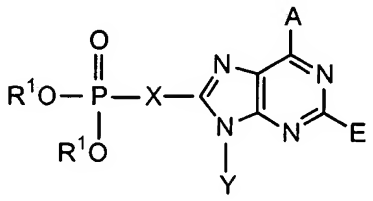
$R^9$ is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;

$R^{10}$ is selected from the group consisting of –H, lower alkyl, $-NH_2$, lower aryl, and lower perhaloalkyl;

$R^{11}$ is selected from the group consisting of alkyl, aryl, –OH, $–NH_2$ and $–OR^3$ ; and

pharmaceutically acceptable prodrugs and salts thereof.

50. (New) A pharmaceutical composition comprising a pharmaceutically effective amount of an FBPase inhibitor of formula 1:



wherein

A is selected from the group consisting of $–NR^8_2$, $–NHSO_2 R^3$, $–OR^5$, $–SR^5$, halo, lower alkyl, $–CON(R^4)_2$, guanidino, amidino, –H, and perhaloalkyl;

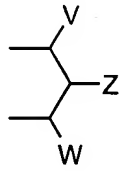
E is selected from the group consisting of –H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, –CN, and $–NR^7_2$ ;

X is selected from the group consisting of -alk-NR–, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S–, alicyclicene, heteroalicyclicene, 1,1-dihaloalkylene, –C(O)-alk-, –NR–C(O)–NR'–, -alk-NR–C(O)–, -alk-C(O)–NR–, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from –H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;

Y is selected from the group consisting of –H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $–C(O)R^3$, $–S(O)_2 R^3$, $–C(O)–OR^3$, $–CONHR^3$, $–NR^2_2$, and $–OR^3$, all except H are optionally substituted;

$R^1$ is independently selected from the group consisting of –H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $–C(R^2)_2$ -aryl, -alk-aryl, $–C(R^2)_2 OC(O)NR^2_2$, $–NR^2 –C(O)–R^3$, $–C(R^2)_2 –OC(O)R^3$, $–C(R^2)_2 –O–C(O)OR^3$, $–C(R^2)_2$

$OC(O)SR^3$, -alk-S–C(O)$R^3$, -alk-S–S-alkylhydroxy, and -alk-S–S–S-alkylhydroxy, or together $R^1$ and $R^1$ are -alk-S–S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together $R^1$ and $R^1$ are




wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and $-R^9$ ; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of $-CH_2$ OH, $-CH_2$ $OCOR^3$, $-CH_2$ $OC(O)SR^3$, $-CH_2$ $OCO_2$ $R^3$, $-SR^3$, $-S(O)R^3$, $-CH_2$ $N_3$, $-CH_2$ $NR^2_2$, $-CH_2$ Ar, –CH(Ar)OH, $-CH(CH=CR^2$ $R^2)OH$, $-CH(C\equiv CR^2)OH$, and $-R^2$ ;

with the provisos that:

a) V, Z, W are not all –H; and

b) when Z is $-R^2$, then at least one of V and W is not –H or $-R^9$ ;

$R^2$ is selected from the group consisting of $R^3$ and –H;

$R^3$ is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;

$R^4$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;

$R^5$ is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;

$R^6$ is independently selected from the group consisting of –H, and lower alkyl;

$R^7$ is independently selected from the group consisting of –H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $-C(O)R^{10}$ ;

$R^8$ is independently selected from the group consisting of –H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $-C(O)R^{10}$, or together said $R^8$ groups form a bidendate alkylene;

$R^9$ is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;

$R^{10}$ is selected from the group consisting of –H, lower alkyl, $-NH_2$, lower aryl, and lower perhaloalkyl;

$R^{11}$ is selected from the group consisting of alkyl, aryl, –OH, $-NH_2$ and $-OR^3$ ; and

pharmaceutically acceptable prodrugs and salts thereof.

**Remarks**

Support for the new claims can be found throughout the specification. For instance, p. 6, lines 17-20, 23-25, p. 61, lines 15-16, p. 61, line 27 – p. 62, line 4, as well as in original claims 35-37, and 41.